



Draft Climate Change Action Plan for Review

Risks, Priorities, and Actions

Presented by Corporate Strategy and Transformation,
Strategic Initiatives



Climate Change Action Plan Development

February - April 2024

PHASE 1: Planning and Initiation

Project Planning
and Introductions

Project Kickoff to
CAO ✓

Project Kickoff to
GEAC ✓

Project Introduction
to Departments ✓

May – June 2024

PHASE 2: Research and Inventory

Research and
Analysis on Threats
and Opportunities

Interviews with
Council and External
Data Experts on
SWOT, Data Sources,
Overlapping Work ✓

Cross-Departmental
consultation on sector-
specific impacts ✓

July – August 2024

PHASE 3: Engagement

Internal and
external
engagement to help
prioritize Threats
and Opportunities

Staff Survey ✓

Public Survey and
Events to promote
survey ✓

External
Stakeholder Focus
Groups ✓

September – November
2024

PHASE 4: Prioritization

Develop criteria and
prioritize Threats and
Opportunities

Risk Assessment and
Prioritization ✓

Corporate and
Community GHG
Inventory ✓

Presentation to
Council and EAC ✓

December 2024 –
Q2 2025

PHASE 5: Plan Development

Develop Climate
Change Action Plan
for endorsement

Development of
Action Plan ✓

Stakeholder
Feedback ✓

Presentation of final
CCAP to Council

TOP CLIMATE HAZARDS in Georgina by 2050



Extreme heat



Lake Simcoe nutrient loads



Warmer, rainier winters



Extreme one-day storms



Wildfire smoke



Annual precipitation



Extreme cold



Very High Risk

Very Low Risk

These findings are based on climate projection data from Ontario's Provincial Climate Change Impact Assessment for the Central Region and water quality and temperature data from Lake Simcoe Region Conservation Authority. This data was analyzed for its impact on infrastructure, people, nature, economies and agriculture in Georgina to determine the ranking of climate hazards.

Who or what will be most impacted in Georgina?

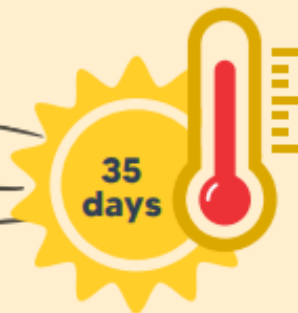
Unhoused people, outdoor workers, kids, seniors, low income individuals

Electricity grid

Agriculture

Wetlands

Summer recreation and tourism



Extreme heat

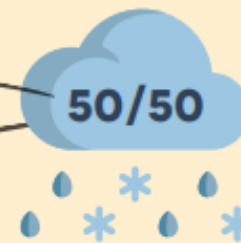
Chippewas of Georgina Island First Nation, First Responders

Agriculture

Wetlands

Winter recreation and tourism

Electrical utilities



Warmer, rainier winters

Chippewas of Georgina Island First Nation

Coldwater fish, insects, amphibians

Summer recreation and tourism



Lake Simcoe water quality

Agriculture

Stormwater and road infrastructure



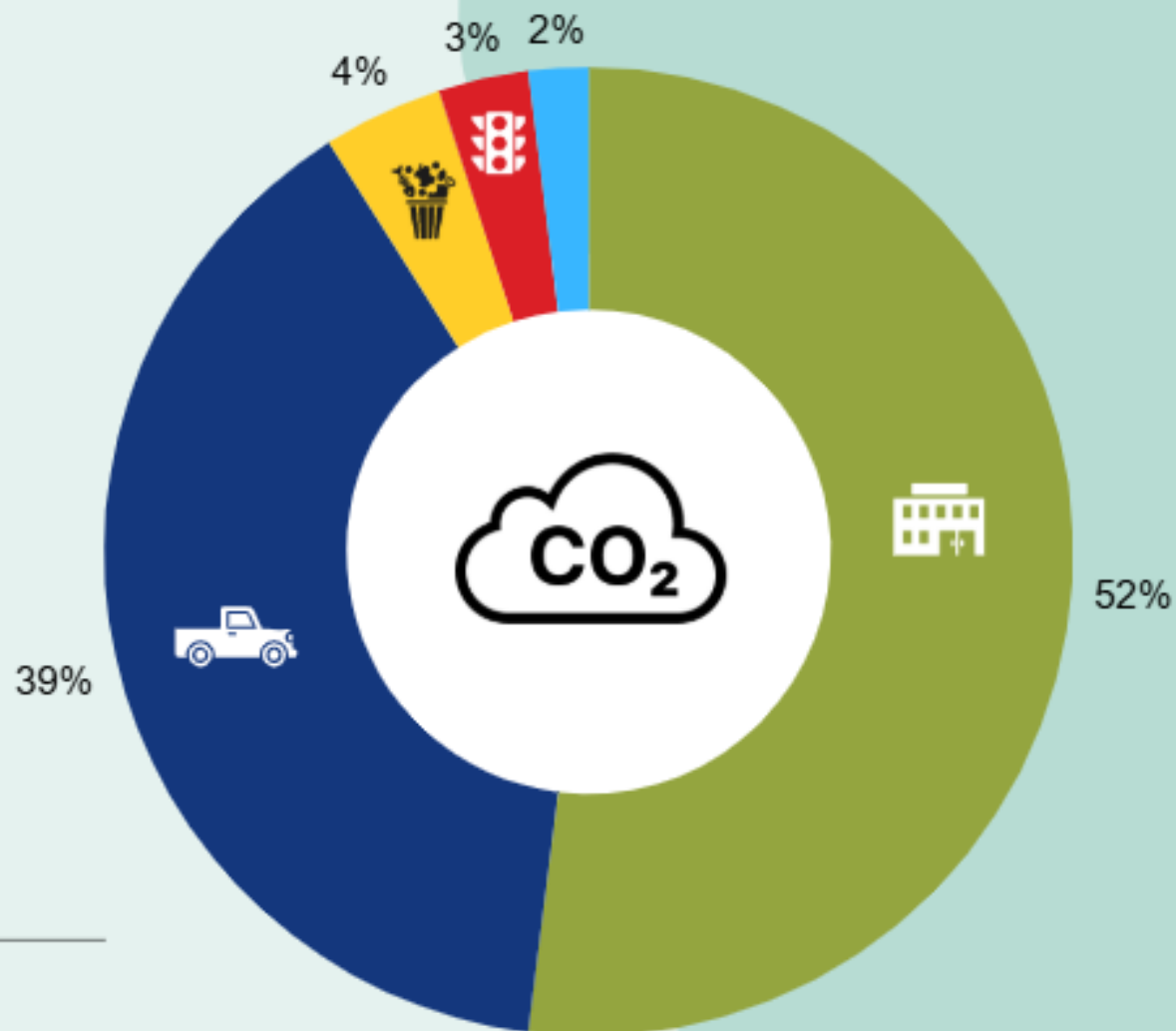
Extreme one-day storms

CORPORATE GREENHOUSE GAS EMISSIONS

Town of Georgina's 2023 Corporate Emissions by sector

- Buildings
- Fleet vehicles
- Solid waste
- Streetlights/Traffic signals
- Water and wastewater

Total corporate emissions in 2023 were
2,100 Tonnes (t) of CO₂ equivalent



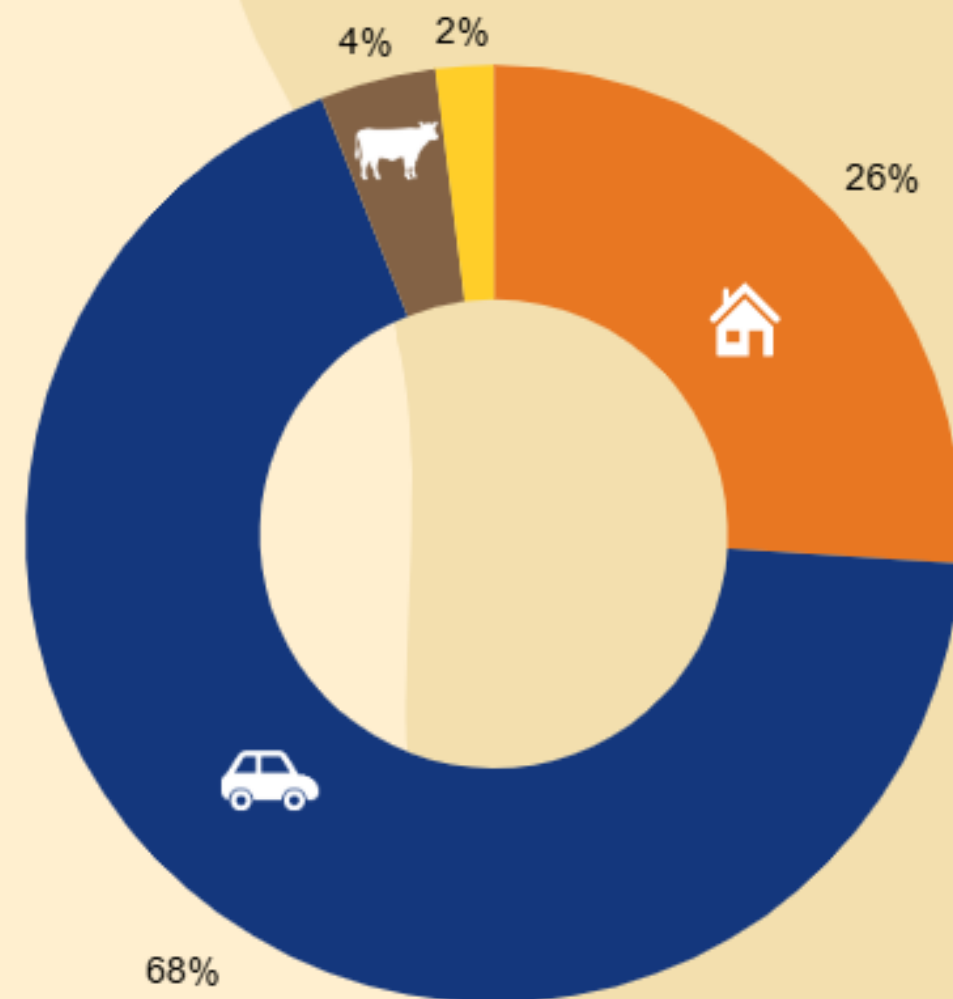
Data Sources: Town of Georgina's utility bills, gas bills and fuel consumption data, solid waste data from York Region

COMMUNITY GREENHOUSE GAS EMISSIONS

Georgina's 2023 Community Emissions by sector

- Transportation
- Buildings
- Agriculture
- Waste

Total community-wide emissions in 2023 were **380,000 tonnes (t)** of CO² equivalent

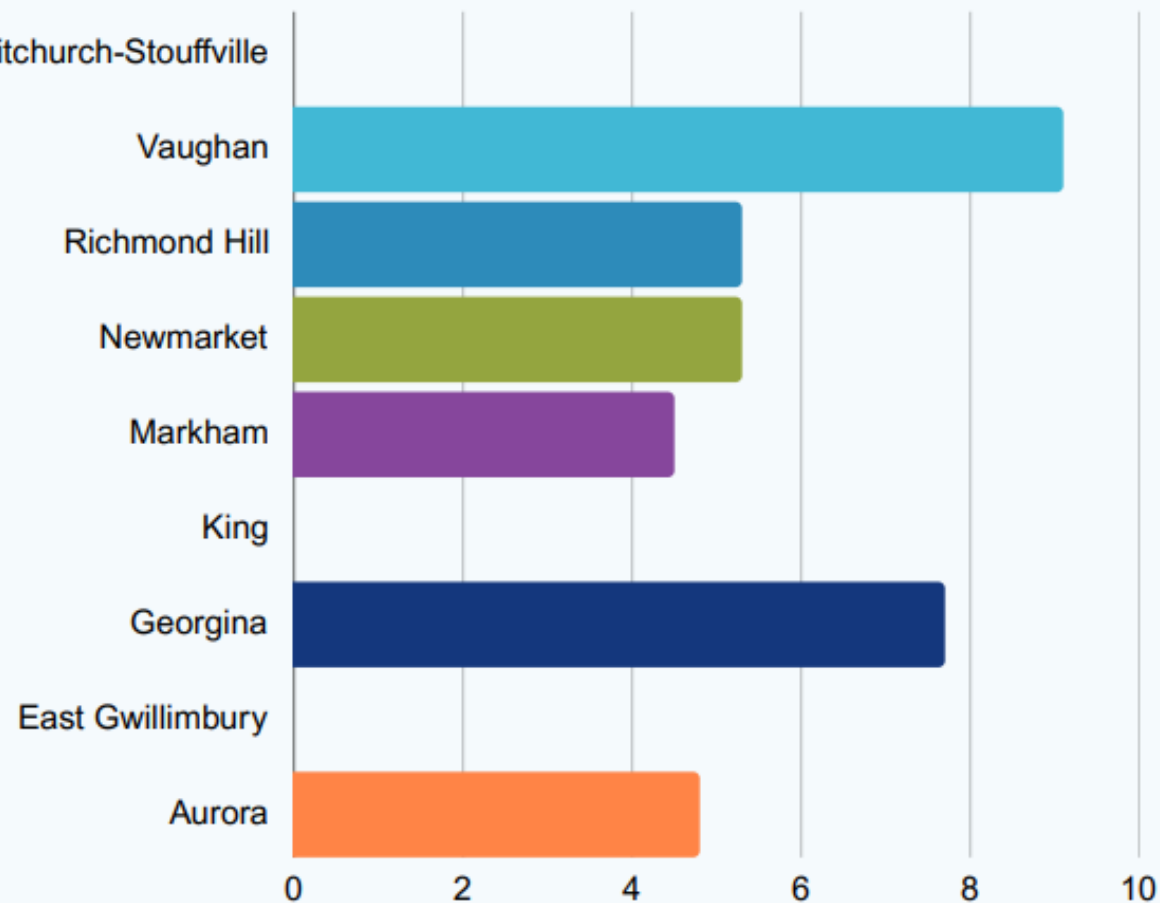


Data Sources: Town of Georgina's utility bills, gas bills and fuel consumption data, solid waste data from The Atmospheric Fund Carbon Emissions Inventory, 2023

Georgina is on the higher end of carbon emissions per person per year at 7.7 tonnes in 2023.



Compared to other York Region municipalities



Regionally, the per capita rate is 6.6 tonnes in 2023.



Community Engagement

- ✓ Over 500 community members engaged
 - ✓ 211 survey responses
 - ✓ 300 in-person interactions at 8 community events
- ✓ Over 100 staff engaged
 - ✓ 90 survey responses
 - ✓ 15+ cross-departmental meetings
- ✓ Over 25 partner organizations engaged
 - ✓ 8 Stakeholder focus groups



When surveyed about hazards caused by climate change

Residents are most concerned about

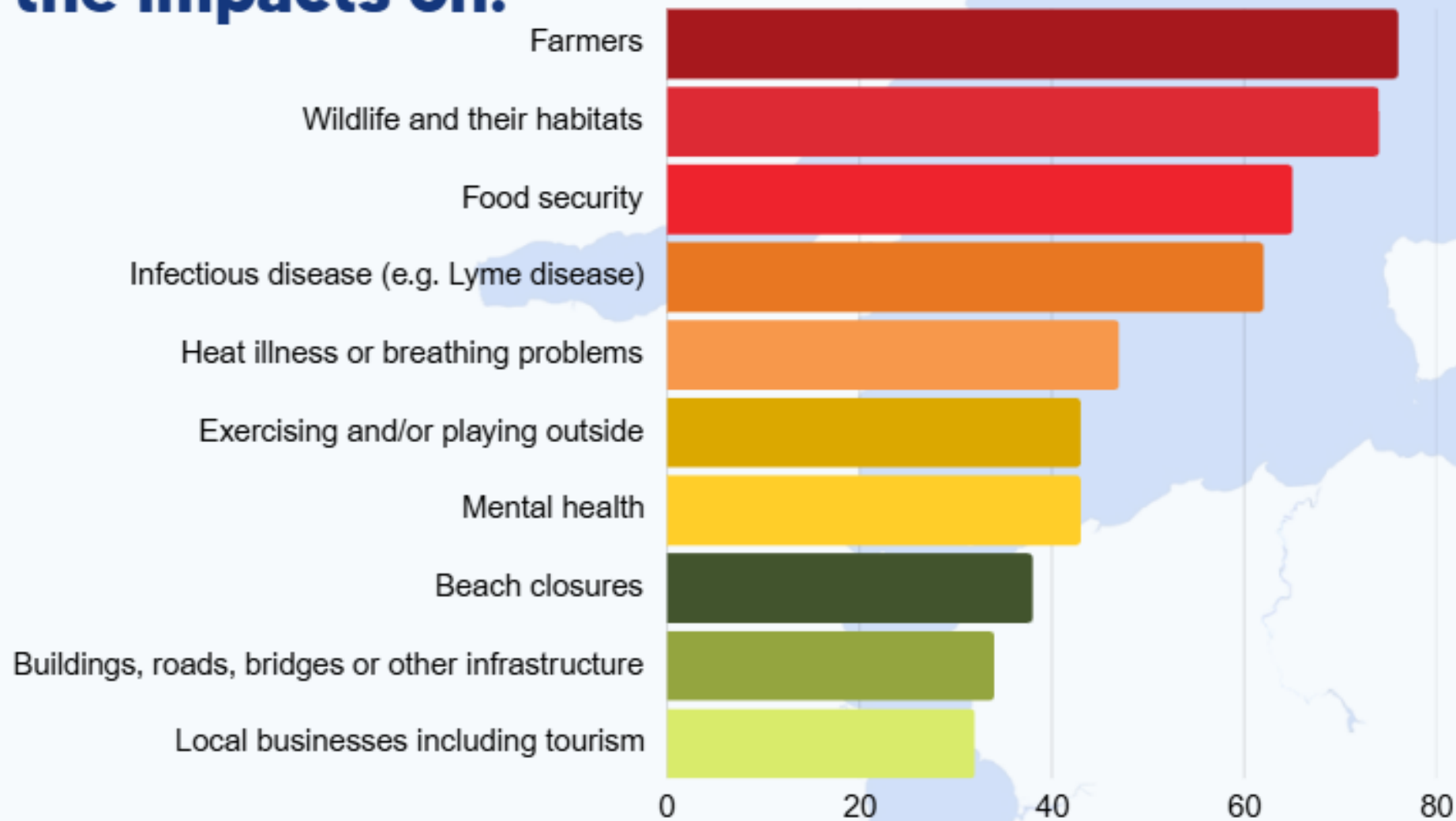


4 in 5

people are concerned about Lake Simcoe getting warmer and more polluted.



People are most concerned about the impacts on:





CCAP Objectives

1. Protect vulnerable people and promote safe summer recreation during **extreme heat**
2. Reduce **Lake Simcoe nutrient loading** for continued use and enjoyment
3. Protect vulnerable people and adapt winter recreation **to warmer and rainier winters**
4. Ensure infrastructure and lands can handle **more extreme one-day storms**
5. Reduce **corporate greenhouse gas emissions**, mainly from buildings
6. Reduce **community-wide greenhouse gas emissions**, mainly from transportation

Extreme Heat Success Stories



The Town planted over 200 trees community-wide in 2024



York Region has a Heat Relief Strategy for People Experiencing Homelessness



Town facilities and parks offer cooling relief

Extreme Heat Actions

Sector	Action	Type
People	Advocate for expanded on-demand public transit options and continue to promote existing options	Enhance
	Advocate for air conditioning in schools	New
	Develop and share pet safety during extreme heat tip sheet	New
Natural Environment	In partnership with LSRCA, ensure tree species planting list is climate resilient	Enhance

Extreme Heat Actions (2)

Sector	Action	Type
Economy and Tourism	Ensure attendees have access to shading and cooling at Town-run summer events (ie. shade, fans, water, etc.)	Enhance
	Increase shade at beaches and parks (tree canopy and/or shade structures) to encourage safe use during extreme heat	Enhance
	Diversify activities at waterfront parks (splash pads, rock climbing walls, etc.) to attract visitors in extreme heat or poor lake quality conditions	New
	Ensure all fields and diamonds have adequate lighting to extend play during evenings when temperature is cooler	Enhance
	Investigate adding “ Rural Resiliency ” stream to Community Improvement Plan to support agri-tourism in shoulder seasons	New



Future Considerations

- Increase **animal shelter capacity** to take in more pets during extreme heat and other weather events (storms, etc.)
- Create a **Maximum Temperature Bylaw** (As precedents are set in other municipalities, Georgina can assess the feasibility of this type of bylaw)
- Explore **subsidy program for air conditioning units** for low-income renters (As an example, the City of Hamilton gave \$350 grants for air-conditioning units to 200 low-income Hamilton tenants in 2024)
- As bus stops expand throughout the municipality, ensure that there is **adequate shading at bus stops** including tree cover and/or adequate shelters

Lake Simcoe Nutrient Load Success Stories



Phosphorus recycling plant advocacy



“Grown in Georgina” Kids Educational Content: Future Chicken by ClearWater Farm



Shoreline stabilization using green infrastructure solutions

Lake Simcoe Nutrient Load Actions

Sector	Action	Type
People	Create a "Love our Lake" campaign to promote responsible resident and visitor practices to protect lake health	New
	Advocate for more provincial and federal funding, support, and coordinated action for Lake Simcoe along with Lake Simcoe and regional coalitions	Enhance
	Share resources and explore partnerships on lake-related conservation projects with Chippewas of Georgina Island First Nation (e.g. invasive species removal)	New
	Partner with local non-profits to host community shoreline and beach clean-ups	New



Lake Simcoe Nutrient Load Actions (2)

Sector	Action	Type
Natural Environment	Update and implement Salt Management Plan	Enhance
	Waive septic inspection certificate fee for homeowners who have their tank pumped more frequently than required by regulation (ie. every 5 years)	New
Infrastructure	Proactively implement non-critical enhancements to stormwater ponds (ie. vegetation removal, etc.)	Enhance
	Incorporate green infrastructure (e.g. bioswales) when expanding or rehabilitating stormwater infrastructure where feasible	Enhance
Agriculture	Work with LSRCA and other funders to promote best practices and funding programs available for farmers	New



Future Considerations

- Over the long-term, expand municipal wastewater system along lake to move residents off septic services

Warmer, Rainier Winters Success Stories



Communicate warnings about lake ice risk



Promote non-weather dependent winter activities such as Taste of Georgina



Update and implement Salt Management Plan

Warmer, Rainier Winter Actions

Sector	Action	Type
Tourism and Economy	Diversify winter activities for years of warm winter conditions (e.g. Indoor rock-climbing wall, refrigerated outdoor skating rink, fat biking etc.)	Enhance



Future Considerations

- Explore longer-term alternative winter activities to draw in visitors regardless of the winter weather (including innovative recreation facilities such as domed fields, pools with indoor rock-climbing walls, etc.)
- Support businesses and partners as they look to diversifying their offerings

Extreme One-Day Storm Success Stories



Asset Management Planning considers future climate conditions



Operations division regularly cleans and maintains ditches, culverts, SWM ponds for optimal functionality



Conducting Inflow and Infiltration Reduction Study to improve capacity of sanitary system

Extreme One-Day Storm Actions

Sector	Action	Type
Tourism and Economy	Re-naturalize parks with poor drainage and high-water levels and select drier locations for these parks	Enhance
Infrastructure	Maintain and clean ditches, culverts, and stormwater management ponds	Enhance
	Share resources to help residents reduce flood risk at home	Enhance

Corporate GHG Emission Success Stories



Switched all streetlights to LED bulbs



MURC was built to include high energy efficiency measures



Civic Centre is being built to be Net Zero Ready

Corporate GHG Emission Actions

Sector	Action	Type
Buildings	Evaluate Net Zero Ready option in the design of new corporate building	Enhance
	Building retrofits and equipment upgrades evaluate option for more energy efficient models , including electric (rather than like-for-like replacement)	Enhance
	Perform energy efficiency assessments on buildings with greatest absolute emissions or intensity; and implement improvements (e.g. building commissioning, retrofits, etc.)	

Corporate GHG Emission Actions (2)

Sector	Action	Type
Fleet	Monitor and communicate driver behaviour stats to promote fuel efficiency	Enhance
Tree Canopy	Develop a plan to strategically plant trees and vegetation in priority locations in line with the 3-30-300 rule	Enhance
	Promote tree planting legacy program to encourage residents to contribute to tree plantings	Enhance
Emissions from procured goods and services	Provide resources and education about sustainable products and material options for procurement	Enhance



Future Considerations

- Use opportunity-based benchmarking for setting reduction targets. In other words, once energy reduction opportunities have been identified and calculated, set an emissions reduction target (ie. 25% reduction by 2030)
- Explore innovative financing options for retrofit, renewable energy, and new construction projects
- Establish localized, small-scale generation of renewable energy at Town facilities (ie. solar panel installations)



Community GHG Emission Success Stories



YRT, Go Transit, Quest Bus offer public transportation options



10MW solar farm on Old Homestead Road



Public electric vehicle charging stations throughout Georgina

Community GHG Emission Actions

Sector	Action	Type
Industrial, commercial, institutional (ICI) buildings	Provide resources about energy retrofit grants for small businesses and ICI (ie. Save on Energy program)	New
	Add " Green Business Leader " award to Business Excellence and Mayor and Council Milestone Awards	New
Residential buildings	Provide resources about grants for residential energy and water retrofits (York Region pilot program, LEAF grants, Save on Energy, HERO workshop etc.)	New

Community GHG Emission Actions (2)

Sector	Action	Type
Commuting and transportation	Encourage carpooling (use of 404 Go Transit Lot or digital platforms)	New
	Advocate for electric vehicle readiness in Ontario Building Code for commercial and residential buildings	New
	Explore electric vehicle infrastructure requirements for parking lots through Parking Study Review	New
	Encourage builders to include electric vehicle readiness as option in sales packages for conditions of approval	New

Community GHG Emission Actions (3)

Sector	Action	Type
Land use planning	Encourage mixed-use neighbourhoods in all Secondary Plans	Enhance
	Encourage more compact development through incentive programs (as available), streamlined application processes, and policies	Enhance
Waste	Create and implement Waste Management Plan	Enhance
Tree canopy	Partner with local non-profits on community tree planting and native restoration initiatives , prioritizing areas near watercourses or sloped grassy areas	Enhance



Future Considerations

- Invest in distributed community energy projects (ie. wind, solar, geothermal) to reduce greenhouse gas emissions and improve the resiliency of the electricity grid (reduces potential for disruption if there is more decentralized distribution)
- Led by York Region, collaborate on a regional Community Financing Program to provide incentives for homeowners to conduct energy efficiency retrofits (similar to Durham Greener Homes)

Governance Actions

Sector	Action	Type
All	Collaborate cross-departmentally to incorporate climate considerations in plans, policies, and projects	New
	Join municipal networks for learning and collaboration opportunities (ie. Partners for Climate Protection, Clean Air Partnership)	New
	Include Climate Change Action Plan into Terms of Reference for Environmental Advisory Committee	Enhance



Future Considerations

- Set up a weather station near Lake Simcoe for lakeside data collection to assist with ongoing climate modelling and road, operations, and emergency services data (or advocate for Environment Canada or local partner to set one up)
- Explore emerging technologies such as Artificial Intelligence (AI) applications for monitoring climate impacts on infrastructure, fleet, buildings, etc.

Next Steps



Start implementing actions that have adequate resources and budget



Start sharing resources and tips with residents and businesses



Develop 2026 Business Cases for the implementation of actions requiring resources and budget